

found in the specification at page 5, lines 23-33. Applicants' Claim 1 now recites "A method of manufacturing a grid structure with regions exhibiting different properties, wherein the method comprises the steps of: extruding material strips exhibiting different properties so as to form the regions of said grid structure; and allowing at least one of the extruded material strips to expand in at least one direction such that at least one dimension of the at least one of the extruded material strips prior to extrusion is restored."

(Emphasis added)

Reilly et al. does not disclose or suggest the method as claimed by Applicants' Claim 1. In particular, Reilly et al. does not disclose or suggest a method of manufacturing a grid structure comprising the step of allowing at least one of the extruded material strips to expand in at least one direction such that at least one dimension of the at least one of the extruded material strips prior to extrusion is restored, as recited by Applicants' Claim 1.

Reilly et al. is directed to using two different extruders which feed two generally, but not necessarily, different rubber compounds to a convergence point where the two feeds are brought together to create a bi-layer. This bi-layer then is fed through a series of dies, each of which doubles the number of layers in the extrudate. See column 3, lines 1-15. Reilly et al. does not disclose or suggest allowing one or both of the extruded rubber compounds to expand in at least one direction such that at least one dimension of the extruded rubber compound(s) prior to extrusion is restored.

Accordingly, withdrawal of the rejection with respect to Claim 1 and allowance thereof are respectfully requested. Claim 2 depends from Claim 1 and therefore includes the limitations of Claim 1. Therefore, for at least the same reasons given above for Claim

1, Claim 2 is believed to be allowable over the cited reference. Accordingly, withdrawal of the rejection with respect to Claim 2 and allowance thereof are respectfully requested.

Claims 3 and 4 were rejected under 35 U.S.C. §103(a) over Reilly et al. in view of U.S. Patent No. 5,581,592 issued to Zarnoch et al. on December 3, 1996 ("Zarnoch et al.").

Claims 3 and 4 depend from Claim 1 and therefore include the limitations of Claim 1. Therefore, for at least the same reasons given above for Claim 1, Claims 3 and 4 are believed to be allowable over the cited references. Accordingly, withdrawal of the rejection with respect to Claims 3 and 4 and allowance thereof are respectfully requested.

Claims 5 and 6 were rejected under 35 U.S.C. §103(a) over Reilly et al. in view of Zarnoch et al. in view of U.S. Patent No. 3,919,559 issued to Stevens on November 11, 1975 ("Stevens").

Applicants have amended independent Claim 6 to better define Applicants' invention and to overcome the rejection. In particular, Applicants have added limitations to Claim 6 similar to the limitations contained by Claim 1. Applicants' Claim 6 now recites "an examination apparatus for irradiating an object by means of X-rays, the examination apparatus comprising an X-ray source, an X-ray detector, a receiving space for the object to be irradiated, arranged between the X-ray source and the X-ray detector and an X-ray scatter grid with successive regions of different X-ray absorptivity, said X-ray scatter grid to be arranged between the object and the X-ray detector, said X-ray scatter grid is manufactured by a method comprising the steps of: extruding material strips exhibiting different properties so as to form the regions of said grid structure; and allowing at least one of the extruded material strips to expand in at least one direction

such that at least one dimension of the at least one of the extruded material strips prior to extrusion is restored.” (Emphasis added)

None of the cited references disclose or suggest the apparatus as claimed by Applicants’ Claim 6. In particular, none of the cited references disclose or suggest an examination apparatus for irradiating an object by means of X-rays, where the examination apparatus comprises, inter alia, an X-ray scatter grid with successive regions of different X-ray absorptivity, and where the X-ray scatter grid is manufactured by a method comprising the steps of: extruding material strips exhibiting different properties so as to form the regions of said grid structure; and allowing at least one of the extruded material strips to expand in at least one direction such that at least one dimension of the at least one of the extruded material strips prior to extrusion is restored, as recited by Applicants’ Claim 6.

As stated above with respect to Claim 1, Reilly et al. does not disclose or suggest allowing one or both of the extruded rubber compounds to expand in at least one direction such that at least one dimension of the extruded rubber compound(s) prior to extrusion is restored.

Zarnoch et al. and Stevens do not cure the deficiencies of Reilly et al. Zarnoch et al. is directed to an anti-scatter X-ray grid device having alternating radiation absorbing and radiation non-absorbing materials. Zarnoch et al. does not disclose or suggest extruding these materials, let alone allowing one or both of the extruded materials to expand in at least one direction such that at least one dimension of the extruded material(s) prior to extrusion is restored.

Stevens is directed to a process for producing film including radiation-opaque louver-like elements of divergent, or convergent orientation. Stevens does not disclose or suggest producing the film by extruding materials, let alone allowing one or both of the extruded materials to expand in at least one direction such that at least one dimension of the extruded material(s) prior to extrusion is restored.

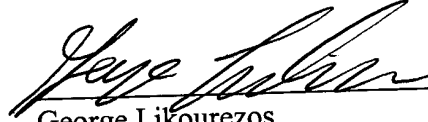
Accordingly, withdrawal of the rejection with respect to Claim 6 and allowance thereof are respectfully requested. Claim 5 depends from Claim 1 and therefore includes the limitations of Claim 1. Therefore, for at least the same reasons given above for Claim 1, Claim 5 is believed to be allowable over the cited references. Accordingly, withdrawal of the rejection with respect to Claim 5 and allowance thereof are respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-7, are believed to be in condition for allowance and patentably distinguishable over the art of record.

Attached hereto and identified as VERSION WITH MARKINGS TO SHOW CHANGES MADE is a copy of the amended claims detailing the amendments made thereto.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call John Vodopia, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-333-9627.

Respectfully submitted,



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

Paragraph beginning on page 5, line 23 and ending on page 6, line 2:

--In FIG. 3, the stock used to realize an X-ray scatter grid is formed by two material strips 12 and 13 of comparable viscosity that are melted and co-extruded in comparable circumstances. Such input stock strips 12, 13 can be fed to the multiplication device 11 in the form of the stacked layers [(fig 3A)] or adjacently arranged layers [(fig 3b)]. In [Fig. 3b] FIG. 3 a cutting edge 14 of the multiplication device 11 separates the strips 12, 13 each time perpendicularly to their longitudinal direction; subsequently, a two-layer assembly of input stock strips 12 and 13 is transported upwards on a ramp 15 and is allowed to expand laterally so that the original width of the assembly 12, 13, that is, the width before cutting, is restored. The other part of the cut assembly 12, 13 travels downwards on a ramp 18 and, upon lateral expansion, takes in a position in the opposite direction underneath the previously described expanded two-layer assembly of input stock layers 12, 13. Subsequent to a first multiplication operation the two-layer assembly has thus become a four-layer assembly. By arranging a set of multiplication elements behind each other a higher degree layer multiplication can be achieved.--

**IN THE ABSTRACT:**

--A method [to produce] is provided for producing a grid structure [by means of] using an extrusion process. In order to extrude a layered structure exhibiting a high aspect [ration] ratio, a multiplication die is used. Such a method is also suited to

manufacture X-ray scatter grids, [comprising] which include X-ray absorbing [(10)] and X-ray transmitting [(9)] regions [said]. The X-ray scatter grid [(6)] is designed to be used in an X-ray examination apparatus.

[Fig. 8]--

**IN THE CLAIMS:**

1. (Amended) A method of manufacturing a grid structure with regions exhibiting different properties, [characterized] wherein the method comprises the steps of:

extruding [in that] material strips exhibiting different properties [are extruded] so as to form the regions of said grid structure; and

allowing at least one of the extruded material strips to expand in at least one direction such that at least one dimension of the at least one of the extruded material strips prior to extrusion is restored.

6. (Amended) An examination apparatus (1) for irradiating an object (4) by means of X-rays (3), the examination apparatus (1) [including] comprising an X-ray source (2), an X-ray detector (8), a receiving space (5) for the object (4) to be irradiated, arranged between the X-ray source (2) and the X-ray detector (8) and an X-ray scatter grid (6) with successive regions of different X-ray absorptivity (3), said X-ray scatter grid to be arranged between the object (4) and the X-ray detector (8), [characterized in that] said X-ray scatter grid is manufactured [according to claim 3] by a method comprising the

steps of: extruding material strips exhibiting different properties so as to form the regions of said grid structure; and allowing at least one of the extruded material strips to expand in at least one direction such that at least one dimension of the at least one of the extruded material strips prior to extrusion is restored.